CONTENTS

vii List of participants

H. A. KHAN, I. E. QURESHI and I. AHMAD — 1 Editorial

S. A. DURRANI — 3 Note by the Editor-in-Chief

OPENING LECTURE

CHAIRMAN: MUNIR AHMAD KHAN

R. BRANDT — 7 New horizons in heavy ion physics studied with SSNTD

SESSION I: FORMATION OF ETCHABLE LATENT DAMAGE TRAILS

CHAIRMAN: W. ENGE

L. T. CHADDERTON — 11 On the anatomy of a fission fragment track

L. T. CHADDERTON, J. P. BIERSACK and S. L. KOUL — 31 Discontinuous fission tracks in crystalline detectors

F. M. RUSSELL — 41 Identification and selection criteria for charged lepton tracks in mica

C. PERRON and M. BOUROT-DENISE — 45 Influence of temperature on track registration in olivine

C. DOMINGO, D. O'SULLIVAN, A. THOMPSON, C. BAIXERAS, F. FERNANDEZ and A. VIDAL-QUADRAS — 47 Latent track intensification due to ageing in solid state nuclear track detectors

K.-O. E. GROENEVELD — 51 Nuclear track formation related electron production and transport from ion penetration through solids

I. J. M. AL-KHALIFA, K. JAMES, S. A. DURRANI and M. S. KHALIFA — 61 Radiation damage studies of mineral apatite, using fission tracks and thermoluminescence techniques

M. S. KHALIFA, I. J. M. AL-KHALIFA and S. A. DURRANI — 65 Radiation damage and its effect on the thermoluminescence properties of minerals sphene and epidote

M. REBETEZ, A. CHAMBAUDET and M. MARS — 69 Theoretical etching effects on "track in track" and "track in cleavage" length distributions

SESSION II: METHODOLOGY

CHAIRMAN: D. O'SULLIVAN

B. E. FISCHER and R. SPOHR — 75 Ion tracks and microstructure technology

J. U. SCHOTT — 81 Charge coupled devices (CCDs) — a detector system for particles with time resolution and local assignment with particle trajectories

S. NAKAMURA, S. ORITO, T. DOKE, H. ICHINOSE, K. KUWAHARA and K. OGURA — 91 A large etching system for plastic track detectors

S. DJEFFAL, D. E. CHEROUATI, N. ABDOUN and S. A. DURRANI — 95 Recent progress on the scintillator-filled etch-pit method of track counting

SESSION III A: TRACK REGISTRATION PROPERTIES

CHAIRMAN: H. G. PARETZKE

F. GRANZER, B. PISCHEL and J. DÜRING — 101 Direct visualization of heavy ion tracks in evaporated AgCl- and Se-films

M. FUJII, R. YOKOTA and Y. ATARASHI — 107 New polymeric track detectors of high sensitivity (SR-86)

A. SAXENA and K. K. DWIVEDI — 111 Range and energy-loss of ^{238}U in Triafol-TN using CR-39 track detector

M. FROMM, A. CHAMBAUDET and F. MEMBREY — 115 Data bank for alpha particle tracks in CR-39 with energies ranging from 0.5 to 5.0 MeV recorded for various incident angles

Y. M. AMIN — 119 Effect of damage on the etching and X-ray diffraction properties of zircon

J. TORRELLES, C. BAIXERAS, C. DOMINGO, F. FERNANDEZ and A. VIDAL-QUADRAS — 125 Lexan polycarbonate response to relativistic gold ions

A. WAHEED, G. MOSCHINI, H. A. KHAN, R. CHERUBINI, L. LEMBO and A. M. I. HAQUE — 129 Registration of low energy protons in CR-39 for use in fast neutron dosimetry

SESSION III B: TRACK REGISTRATION PROPERTIES

CHAIRMAN: E. SCHOPPER

MATIULLAH, M. TUFAIL, N. AHMAD, G. A. KHAN, S. MANZOOR and H. A. KHAN — 137 Some investigations on the response of CR-39 detector to protons, deuterons and alpha particles

O. A. BERNAOLA, R. MAZZEI, G. SAINT MARTIN and J. C. GRASSO — 141 A simple method for the evaluation of induction time in SSNTD

S. M. FARID — 145 Dependence of sensitivity of cellulose nitrate (R) and Makrofol-E polycarbonate plastic detectors on etching temperature

KANG TIESHENG, ZHAI PENGJI and R. SPOHR — 151 Calibration of Chaoyang No. 1 polycarbonate plastic track detector for heavy ions

ZHAI PENGJI and KANG TIESHENG — 155 The effect of swelling on the determination of bulk etching rate by fission fragment track diameter

SHI-LUN GUO, HIUHONG HAO, R. BRANDT and P. VATER — 159 Etching and technical parameters of Makrofol KG plastic foil for manufacture of nuclear track membrane

JIAN ZHOU and HUAN-HUA CUI — 163 Sensitivity enhancement of PETP track detector by UV radiation

A. KHODAI-JOOPARY, M. A. SIAL, H. A. KHAN, P. VATER and R. BRANDT — 167 Chemical etching of polyvinylidene fluoride films

K. WATANABE — 171 Etching characteristics of fission tracks in Plio-Pleistocene zircon

T. KOBAYASHI and M. FUJII — 175 Effect of various etching solutions on the response of CR-39

I. CSIGE, I. HUNYADI, G. SOMOGYI and M. FUJII — 179 Vacuum effect on the etch induction time and registration sensitivity of polymer track detectors

J. TORRELLES, C. BAIXERAS, C. DOMINGO, F. FERNANDEZ and A. VIDAL-QUADRAS — 183 A comparative study of bulk etch rate measurement methods in polycarbonate detectors

JASPAL SINGH, SURINDER SINGH and H. S. VIRK — 187 Etching studies of CR-39 plastic track recorder

SHYAM KUMAR, A. K. GARG, SANJAY KUMAR and A. P. SHARMA — 191 Response of glass detectors to accelerated heavy ions

S. Chander, S. Kumar, A. K. Garg and A. P. Sharma — 195 Study of heavy ion tracks in cellulose nitrate (Russian) plastic track detector

Surinder Singh and Balwinder Singh — 199 The effect of gamma irradiations on etching characteristics of some solid state track recorders

Matiullah and S. A. Durrani — 203 Measurement of the etching characteristics of proton, fission-fragment and heavy-ion tracks in CR-39

S. Manzoor, H. A. Khan, Matiullah, M. Tufail, A. A. Qureshi, F. Ansari, R. Shoaib and L. Lembo — 207 Some track registration characteristics of CR-39 detectors fabricated under various curing conditions

A. S. Chohan, S. Manzoor, S. M. Akhtar, N. A. Khan, M. A. Baig and H. A. Khan — 211 Characteristics of latent damage trails due to high energy ^{208}Pb and ^{238}U ions in CR-39 and muscovite mica

D. Becker, U. Leinemann-Heyna, R. Beaujean and W. Enge — 217 Some remarks on transversal track etching rate measurements — conductivity of CR-39 and NaOH mixtures

SESSION IV: TRACK ANNEALING PROPERTIES

Chairman: L. T. Chadderton

S. A. Durrani and K. James — 223 The effects of irradiation temperature on the registration and annealing properties of nuclear tracks in crystals

C. Perron, M. Bourot-Denise, V. P. Perelygin, W. Birkholz, S. G. Stetsenko, R. Dersch, T. C. Zhu, P. Vater and R. Brandt — 231 Revelation of heavy ion tracks in olivine: orientation dependent annealing or etching?

A. S. Sandhu, Surinder Singh and H. S. Virk — 235 Activation energy of track annealing in minerals as a function of interatomic spacing

R. K. Bhatia and H. S. Virk — 239 Annealing kinetics of heavy ion tracks in CR-39

A. S. Sandhu, Surinder Singh and H. S. Virk — 241 Track annealing studies in muscovite mica

A. S. Sandhu, Surinder Singh and H. S. Virk — 245 Anisotropic etching and annealing studies of fission tracks in zircon

R. K. Bhatia and H. S. Virk — 249 Post-irradiation annealing in plastic detector CR-39

Gurinder Singh and H. S. Virk — 253 Annealing of heavy ion radiation damage in soda glass detector

G. Hussain and H. A. Khan — 257 The role of preannealing etching in the revelation of fission fragment damage trails in Makrofol-E polycarbonate plastic detectors

SESSION V: ELECTROCHEMICAL ETCHING AND SEMI-AUTOMATIC SCANNING

Chairman: M. Monnin

A. Noll, G. Rusch, H. Röcher, J. Dreute and W. Heinrich — 265 The Siegen automatic measuring system for nuclear track detectors: new developments

M. Várnagy, S. Juhász and L. Vas — 269 A personal computer controlled jumping spark counter for the evaluation of angular distributions

Li Boyang — 271 Comparison of the viewpoints on track treeing in foil CR-39

Li Xiangbao — 277 A study of the mechanism of electrochemical treeing

W. Birkholz, M. Steinert, P. Stöbe, S. G. Stetsenko and V. P. Perelygin — 281 Computer-aided evaluation of SSNTD

A. Chambaudet, D. Fellmann, M. Fromm and D. Klein — 287 Counting in plastic track detectors during routine work

R. Muhammed, F. Abu-Jarad and M. I. Al-Jarallah — 291 Multichannel leak detection system for electrochemical etching

N. A. Karamdoust and S. A. Durrani — 295 Experimental verification of the equations governing the electrical breakdown of polymeric dielectrics during electrochemical etching of tracks

Ravi Chand Singh and H. S. Virk — 301 Electrochemical etching of fission fragment tracks in cellulose triacetate

P. S. Mehla, S. K. Chakarvarti and N. Singh — 305 On the variation of electrical conductivity with temperature and concentration of some etchants used in electrolytically controlled etching of nuclear track filters

D. Azimi-Garakani, L. Tommasino and G. Torri — 309 Further investigation on electrochemically etched CR-39 neutron detectors

SESSION VI: INTERACTION STUDIES

Chairman: N. A. Khan

K. Ogura, T. Doke, H. Ichinose, K. Kuwahara, H. Tawara, S. Nakamura and S. Orito — 315 Improvements of CR-39 for massive magnetic monopoles search

M. Debeauvais, J. C. Adloff, J. Ralarosy, F. Fernandez, S. Jokic and M. Zamani — 319 Reaction cross-section of 3.7 GeV/n ^{12}C+Cu, Pb and 1.8 GeV/n ^{40}Ar+Cu studied by the SSNTD technique

H. Afarideh, K. Randle and S. A. Durrani — 323 An investigation of energy and emission probabilities of tritons and alpha-particles in the spontaneous fission of ^{252}Cf

A. Saxena, K. K. Dwivedi and G. Fiedler — 327 Use of CR-39 detector in range and energy-loss measurement of 18.04 MeV/u ^{93}Nb in aluminium

The MACRO Collaboration — 331 The track-etch detector of the MACRO experiment

H. Afarideh, S. A. Durrani and K. Randle — 337 Angular distribution of fragments from the third-chance fission of ^{238}U induced by neutrons

A. Saxena and K. K. Dwivedi — 341 Stopping of 17.7 MeV/u ^{86}Kr in nickel

K. K. Dwivedi — 345 A program for computation of heavy ion ranges, track lengths and energy-loss rate in elemental and complex media

S. Ghosh, A. Saxena and K. K. Dwivedi — 349 Channeling of 1.65 GeV ^{132}Xe in mica

K. K. Dwivedi and G. Fiedler — 353 Detection of evaporated α-particles during the passage of 3.89 GeV ^{238}U in CR-39 detector

H. A. Khan and R. J. Peterson — 357 Study of the pion induced interactions using solid state nuclear track detectors

K. K. Dwivedi — 361 Reproduction of the observed fission track distribution curves by calculation

H. A. Khan — 365 Track detector study of the interaction of intermediate energy-^{18}O ions with some light and heavy targets

E. Ganssauge — 371 The experimental status of the anomalon research

SESSION VII: HEAVY ION INTERACTIONS

Chairman: H. A. Khan

R. Brandt, M. Bronikowski, V. S. Butsev, R. Chasteler, H. H. Cui, G. Dersch, G. Feige, — 383 Search for new phenomena in high-energy heavy ion interaction

E. M. Friedlander, E. Ganssauge, G. Haase, J. Herrmann, D. C. Hoffman, B. Judek, M. I. Krivopustov, B. A. Kulakov, E.-J. Langrock, D. Lee, W. Loveland, F. Pille, N. T. Porile, W. Schulz and G. T. Seaborg

W. Heinrich, C. Brechtmann, J. Dreute and D. Weidmann — 393 Applications of plastic nuclear track detectors in heavy ion physics

H. A. Khan, I. E. Qureshi, K. Jamil, R. Brandt and G. Kraft — 403 Nuclear reactions of relativistic ^{238}U- and ^{139}La-ions with light target atoms

I. E. Qureshi — 411 Kinematical analysis of heavy ion induced nuclear reactions observed with SSNTDs

I. E. Qureshi and H. A. Khan — 423 Nuclear structure information derived from the study of heavy ion reactions using SSNTD

E. U. Khan, J. J. Baluch, A. Waheed, H. A. Khan, P. Vater and R. Brandt — 433 On the reaction cross-section of various heavy ion interactions

M. Zamani, F. Fernandez, S. Jokic, J. Ralarosy and M. Debeauvais — 437 Multi-fragment events in Kr+Ag interactions at 17.7 and 35 MeV/n

H. Afarideh, K. Randle, S. A. Durrani and F. Ashrafizadeh — 441 Elastic scattering of energetic ^{238}U, ^{208}Pb and ^{139}La ion beams in gold targets

H. Afarideh, K. Randle and S. A. Durrani — 445 Two-, three- and four-particle exit channels in the reaction of 14 MeV/amu beam of ^{238}U with gold targets

H. A. Khan, S. Manzoor, M. A. Sial, M. Ahmad and I. E. Qureshi — 449 Energy dependence of ^{238}U interactions with gold target studied with a CR-39 track detector

M. Ahmed, N. A. Khan, M. A. Sial, H. A. Khan and I. E. Qureshi — 453 A preliminary study of reactions induced by uranium in silver and gold

I. E. Qureshi, H. A. Khan, M. A. Sial, F. Ansari, I. H. Khan and M. S. Zafar — 457 Observation of multiprong events in U+Bi reaction using CR-39 polycarbonate

S. R. Hashemi-Nezhad and S. A. Durrani — 463 Observation of abnormal three- and two-prong events in Canadian biotite

S. Manzoor, Z. Arif, I. E. Qureshi and H. A. Khan — 467 Interaction of 960 MeV/nucleon ^{238}U ions with target atoms of a soda-lime glass

SESSION VIII: NEUTRON DETECTION

Chairman: M. Sohrabi

L. Lembo — 473 Personal neutron dosimetry using track detectors

R. W. Pollock — 483 Current developments with bubble detectors

T. Suzuki and K. Tomura — 487 Neutron dosimetry for fission-track dating: an inter-reactor comparison

F. H. Ruddy and J. G. Seidel — 491 Pressure vessel surveillance at commercial light water reactors using solid state track recorder neutron dosimetry

E. Savvides, M. Zamani and S. Charalambous — 495 An approach to fast and thermal neutron spectroscopy based on ^{6}Li (n, a) ^{3}H reaction

S. A. Durrani, Matiullah and A. A. Aslam — 499 — Fast-neutron spectrometry based on the registration of proton recoils in electrochemically etched CR-39 detectors: Part I — theoretical

A. A. Aslam, Matiullah and S. A. Durrani — 503 — Fast-neutron spectrometry based on the registration of proton recoils in electrochemically etched CR-39 detectors: Part II — experimental

Surinder Singh, Harpal Singh, N. P. Singh and H. S. Virk — 507 — Application of plastic track detectors in thermal neutron dosimetry and boron estimation in plants

Matiullah and S. A. Durrani — 511 — A mathematical model for thermal neutron dosimetry using electrochemically etched CR-39 detectors with (n,p) and (n,α) converters

Matiullah and S. A. Durrani — 515 — Further progress towards the construction of a cubical fast-neutron dose equivalent dosimeter based on the CR-39 detector with front radiators

C. Heilmann, G. Portal, E. Marchioni and R. Seltz — 519 — Dosimetry of 10^2 –10^6 Gy ^{60}Co γ-rays with photographic detectors without processing

SESSION IX A: RADON MEASUREMENTS

Chairman: L. Tommasino

F. A. Abu-Jarad — 525 — Application of nuclear track detectors for radon related measurements

K. Wattananikorn, T. Sri-Unyu, O. Sornsuntisook and P. Asnachinda — 535 — Preliminary investigation of radon and radon daughter concentrations in dwellings close to certain fluorite mines in northern Thailand

G. Bigazzi, J. C. Hadler N. and S. R. Paulo — 539 — On indoor radon contamination monitoring with plastic nuclear track detectors: the influence of plate-out effect

P. Le Thanh, A. Chambaudet and C. Vuilleumier — 543 — A method of determining the average energy of radon and daughter alpha particles using two passive detectors: CR-39 nuclear track detector and LiF thermoluminescent detector

T. Šutej, R. Ilić and M. Najžer — 547 — Response of track-etch dosemeters to environmental radon

G. S. Islam, M. A. Islam, S. M. Farid and A. Rahman — 551 — A study of radon activity inside some houses in Bangladesh

L. Tommasino — 555 — Assessment of natural and man-made alpha emitting radionuclides

J.-L. Seidel, M. Monnin, A. Boneville, H. Delorme, J. F. Lénat and N. Segovia — 567 — Radon in soil measurements related to the activity of the "Piton De La Fournaise" volcano, La Reunion Island (France)

P. J. Gilvin and D. T. Bartlett — 571 — Performance of a PADC radon dosemeter

P. J. Gilvin, D. T. Bartlett and J. D. Steele — 577 — Progress in an operational dosimetry system using PADC

D. E. Cherouati, S. Djeffal and S. A. Durrani — 583 — Calibration factor for LR-115 detectors used for the measurement of alpha activity from radon

S. Djeffal, D. E. Cherouati and S. A. Durrani — 587 — Radon survey in Algerian dwellings using LR-115 track film

M. M. Kasim — 591 — Studies of alpha activities in and around a mineral separation pilot plant with CR-39 foil

S. Kandaiya, S. A. R. Al-Najjar and E. Piesch — 595 — Study of α-energy discrimination in CR-39 track etch detectors for use as a radon/thoron dosemeter

G. Haase, M. Tufail, J. Erzinger, D. Molzahn, P. Vater, H. A. Khan and R. Brandt — 599 The use of mica track microfilters and CR-39 SSNTD in the quantitative determination of the Rn-222 content in the rinse water of a drill-hole for the KTB (Kontinentale Tiefbohrung)

SESSION IX B: RADON MEASUREMENTS

Chairman: S. A. Durrani

M. Sohrabi and A. R. Solaymanian — 605 Some characteristics of the AEOI passive radon diffusion dosimeter

A. Varhegyi, I. Baranyi, I. Gerzson, G. Somogyi, J. Hakl and I. Hunyadi — 609 Application of underwater radon measurements in geology

M. Sohrabi and A. R. Solaymanian — 613 Indoor radon level measurements in some regions of Iran

R. C. Ramola, Surinder Singh and H. S. Virk — 617 Radon studies over main boundary thrust near Dehradun (India)

Surinder Singh and H. S. Ghuman — 621 The measurement of radon emanation rates from some rock specimens and building materials using radon emanometry and LR-115 plastic track detector

N. Segovia, J.-L. Seidel, M. Monnin and C. Gallé — 625 Radon in soils: intercomparative studies

F. Abu-Jarad and R. G. Sextro — 629 Reduction of radon progeny concentration in ordinary room due to a mixing fan

O. C. Oppon, D. Azimi-Garakani, L. Tommasino, G. Torri and S. Aziz — 633 Radon monitoring for short term exposures in indoor air

G. Torri, D. Azimi-Garakani, O. C. Oppon, S. Piermattei, A. F. Susanna, J.-L. Seidel, L. Tommasino and L. Ardanese — 637 Measurements of soil and indoor radon in Italy

M. Gallardo, R. Jimenez, L. Loria, L. Morales, M. Monnin and J.-L. Seidel — 643 Radon measurements and subsoil structure: a preliminary study

N. A. Karamdoust, S. A. Durrani and J. H. Fremlin — 647 An investigation of radon exhalation from fly ash produced in the combustion of coal

A. Waheed, R. Cherubini, G. Moschini and L. Lembo — 651 Effect of detection geometry on radon dosimetry

M. Tufail, Matiullah, A. Ali, S. D. Orfi, A. A. Qureshi, G. Hussain and H. A. Khan — 655 Radon measurements in coal mines using polymeric nuclear track detectors

M. Tufail, Matiullah, S. Aziz, F. Ansari, A. A. Qureshi and H. A. Khan — 659 Preliminary radon concentration-survey in some houses of Islamabad

SESSION X: GEOLOGICAL/COSMOLOGICAL/ ARCHAEOLOGICAL APPLICATIONS

Chairman: H. S. Virk

A. Chambaudet — 665 Standardization of fission track dating methods

D. O'Sullivan, A. Thompson, C. Domingo, V. Domingo and K.-P. Wenzel — 673 The outlook for ultra heavy cosmic ray studies with plastic track detectors

A. P. Sharma, G. N. Flerov, V. P. Perelygin and S. G. Stetsenko — 677 Study of VVH galactic nuclei using meteoritic and moon crystal detectors

H. Woith, W. Enge, R. Beaujean and K. Oschlies — 681 Earthquake prediction research with plastic nuclear track detectors

K. Thiel, J. P. Bradley and R. Spohr — 685 On the nature of latent nuclear tracks in cosmic dust particles

R. C. Ramola, Surinder Singh and H. S. Virk — 689 A model for the correlation between radon anomalies and magnitude of earthquakes

N. P. Singh, Surinder Singh and H. S. Virk — 693 F/α track-etch method for U, Th and isotropic disequilibrium study of geological samples

N. Segovia, I. Velasco, G. M. Martinez and E. N. Martinez — 699 Contribution of the track-etch technique to the study of conservation of historical monuments

Shi-Lun Guo, Sheng-Fen Sun, Xiu-Hong Hao, Yong Luo, Yu-Hua Zhao, Yu-Lan Wang, Guoxiao Ren, Yinzao Zhou, Rongqing Zhou and Zuoxiu He — 703 Fission track dating of muscovite mica for searching for magnetic monopoles

G. Bigazzi, J. C. Hadler N. and A. M. Osorio Araya — 707 On Shukolyukov equation for the fading of fission tracks in minerals

G. Bigazzi, J. C. Hadler Neto, P. Norelli, A. M. Osorio Araya, R. Paulino, G. Poupeau and L. Stella De Navia — 711 Dating of glass: the importance of correctly identifying fission tracks

Surinder Singh, Lakhwant Singh, Jaspal Singh and H. S. Virk — 715 Fission track dating of some copper ore formations in India

H. S. Virk, Gurinder Singh and S. Kaur — 719 Fission track dating of natural glasses

A. S. Sandhu, Surinder Singh and H. S. Virk — 723 The effect of anisotropic track etching and annealing on fission track age determination in minerals

M. A. Rahman — 727 Determination of uranium mineral phases in graphite schist rocks using fission track radiography

H. A. Khan — 731 Dating of microcraters formed on the lunar surface

A. A. Qureshi, M. A. Samad Beg, F. Ahmed and H. A. Khan — 735 Uranium exploration in Pakistan using alpha sensitive plastic films (ASPF)

SESSION XI: MICROFILTERS, RADIOGRAPHY AND ELEMENTAL ANALYSIS

Chairman: R. Brandt

P. Vater — 743 Production and applications of nuclear track microfilters

Shi-Lun Guo, R. Brandt, P. Vater and R. Dersch — 751 Study of size distribution and elemental composition of environmental aerosols with nuclear track microfilters, electron microscope and electron microprobe

G. Bigazzi, E. Dompier, J. C. Hadler Neto, G. Poupeau, and E. Vulliez — 755 A reactor intercalibration for fission track-dating and uranium micromapping

Zhai Pengji and Kang Tiesheng — 759 Trace uranium analysis of various waters by fission track technique

Shi-Lun Guo, Yu-Hua Zhao, Yu-Lan Wang, Hiu-Hong Hao, R. Brandt and P. Vater — 763 Microscopic hydrodynamics study with nuclear track membrane

Huan-Hua Cui, Shi-Cheng Wang, Ri-Sheng Wu and Jian Zhou — 767 The production of nuclear track microfilters and their applications

Zhu Tian-cheng, R. Brandt, P. Vater and J. Vetter	771	Kapton nuclear track microfilter
K. Thiel, R. Saager and H. D. Stupp	775	Some applications of uranium tracing in geological samples using thermal neutron induced fission
J. Pálfalvi, G. Lancsarics, I. Fehér and L. Sági	779	Alpha spectrum of "hot particles" determined by CR-39 SSNTD
R. B. Akbari	783	Studies on the physical characteristics of the TLD-LiF dosemeters
Z. A. Tayyeb, I. J. M. Al-Khalifa, M. S. Khalifa and S. A. Durrani	787	Thermoluminescence response of CR-39 to β-particles and γ-rays
R. C. Ramola, Surinder Singh and H. S. Virk	791	Uranium and radon estimation in some water samples from Himalayas
A. Kaur, Surinder Singh and H. S. Virk	795	A study of uranium uptake in plants
M. Ganz, G. Feige, N. Edelstein, J. Bucher, T.-C. Zhu, P. Vater, R. Brandt and J. Vetter	799	Application of Kapton nuclear track microfilters in liquid–liquid extraction of actinoide elements